

REMARKS

Claims 11-14 ands 21-23 are amended hereby. No claims are canceled or newly added. Since claims 1-10, 15-20, and 24-29 have been withdrawn from further consideration, claims 11-14 and 21-23 are currently being examined.

In the Office Action dated May 11, 2006, the Examiner objected to the specification, noting that paragraphs [0021] and [0024] contain the word “appropriate”, which the Examiner stated lacks definite meaning. While the Applicant respectfully disagrees with the Examiner, the Applicant has substituted the word “appropriate” in paragraphs [0021] and [0024] with the word --predetermined-. As a result, the Applicant respectfully submits that the Examiner’s objection to the specification has been overcome. Accordingly, the Applicant respectfully requests that the Examiner withdraw the objection to the specification.

In the Office Action, the Examiner rejected claims 12-13 and 22 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner noted that the claims contain subject matter that is not described in the specification in a manner to convey to one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention. In particular, the Examiner stated that the term “appropriate” has not been described in the specification. The Applicant also has amended claims 12-14 and 22-23 to replace the word “appropriate” with the word --predetermined-. The Applicant believes that these amendments address the Examiner’s concern. Accordingly, the Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. § 112, first paragraph.

The Examiner also rejected claims 11-14 and 21-23 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claims the subject matter of the invention. In particular, the Examiner stated that the term “a vertical axis” is merely an attribute of a body or a structure and, in the absence of the definition of the body or structure, is indefinite. The Applicant has amended the claims to recite that the guide has an inclined surface “with respect to a vertical axis of the body when the body is suspended.” The Applicant believes that the amendments address the rejection by the Examiner since the vertical axis is now defined with respect to the body when suspended. Accordingly, the Applicant

respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. § 112, second paragraph.

Next, the Examiner rejected claims 12-14 and 22-23 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicant regards as the invention. Specifically, the Examiner stated that term “appropriate” lacks meaning as a qualifier for several enumerated terms. While the Applicant respectfully disagrees with this rejection, the Applicant has amended claims 12-14 and 22-23 to recite --predetermined-- in place of the word “appropriate.” The Applicant believes that these amendments address the rejections. Accordingly, the Applicant respectfully requests that the Examiner reconsider the rejection of the claims and withdraw the rejection.

Claims 11-14 and 21-23 were rejected under 35 U.S.C. § 102(b) as anticipated by Paillaman et al. (U.S. Patent Application Publication No. 2002/0080905). In addition, claims 11-14 and 21-23 were rejected under 25 U.S.C. § 102(e) as being anticipated by Ganoza et al. (U.S. Patent Application Publication No. 2003/0085301). The Applicant respectfully disagrees with these rejections and, therefore, respectfully traverses the same.

The Applicant believes that claims 11-14 and 21-23 are patentable over the two references relied upon by the Examiner because the claims recite an apparatus for executing an operation in a vessel of a nuclear reactor or in a pressure vessel of a nuclear reactor that combine a number of features including, among them, a body being capable of being suspended and lowered into the vessel during the operation and a guide having an inclined surface with respect to a vertical axis of the body when the body is suspended. The Applicant respectfully submits that the references relied upon by the Examiner do not disclose or suggest at least these features. Accordingly, the Applicant respectfully submits that claims 11-14 and 21-23 are patentable thereover.

Paillaman et al. describes a remote automated nuclear reactor jet pump diffuser inspection tool with a frame structure 84, an elongated frame member 86, and an attachment frame member 88. (Paillaman et al. at paragraph [0027].) The attachment frame member 88 attaches to a top flange 18 of a reactor pressure vessel 10: the attachment frame member 88 includes a bolt hole 96 that receives a RPV top head bolt 98. (Paillaman et al. at paragraph [0027].) A trolley 104 moves along a track 102 that extends from a first end portion 90 to a second end portion 94 of the frame member 86. (Paillaman et al. at paragraph [0027].) A motor

108 is mounted on the trolley and is operatively coupled to the first end 110 of a drive cable 112. (Paillaman et al. at paragraph [0028] and at Fig. 3.) A tool head 120 is coupled to a second end 122 of the flexible drive cable 112. (Paillaman et al. at paragraph [0028].)

Fig. 4 illustrates details of the tool head 120. (Paillaman et al. at paragraph [0029].) The tool head includes a probe subassembly 130 coupled to a second portion 126 of the tool head 120. (Paillaman et al. at paragraph [0029].) The probe subassembly includes three probe arms 136, and each probe arm 136 includes a sensor 140 coupled thereto. (Paillaman et al. at paragraph [0030].)

So that the tool head 120 may be inserted into the jet pump 62, a separate subassembly, the insertion subassembly 144 is provided. (Paillaman et al. at paragraph [0031].) The insertion subassembly 144 couples to the suction inlet 68 of the jet pump 62 and is sized to receive the tool head 120. (Paillaman et al. at paragraph [0031].) The insertion subassembly 144 includes an elongate tube portion 146, a location cone 148 attached to a first end 150 of the elongate tube portion 146, and an attachment clamp 152 attached at a second end 154 of the elongate tube portion 146. (Paillaman et al. at paragraph [0031].) An attachment clamp 152 secures the insertion subassembly 144 to the jet pump side wall 160. (Paillaman et al. at paragraph [0031].)

Prior to inspection, the insertion subassembly 144 is installed on the jet pump 62 and is secured thereto via the attachment clamp 152. (Paillaman et al. at paragraph [0035].) The probe assembly 130 is then inserted into the insertion subassembly 144 via the insertion cone 148. (Paillaman et al. at paragraph [0036].) The elongate tube portion 146 of the insertion subassembly 144 guides the probe assembly 130 into the jet pump 62. (Paillaman et al. at paragraph [0036].) Once inserted into the jet pump 62, the probe arms 136 and sensors 140 are extended. (Paillaman et al. at paragraph [0036].)

With this brief description in mind, the Applicant respectfully points out two of the many differences between the apparatus of the present invention and the apparatus described by Paillaman et al. First, the Applicant respectfully points out that the frame structure 84 described by Paillaman et al. is not analogous the “body” recited by claims 11-14 and 21-23. As noted above, the frame structure 84 attaches, via the attachment frame member 88, to a top flange 18 of a reactor pressure vessel 10. (Paillaman et al. at paragraph [0027].) Being attached to the top flange 18 of the reactor pressure vessel 10, the frame structure 84 is not “a body capable of being suspended and lowered into the vessel during the operation.” As a result, the Applicant

respectfully submits that Paillaman et al. does not describe each and every feature recited by claims 11-14 and 21-23 and, therefore, cannot be relied upon to reject these claims under 35 U.S.C. § 102(b).

In addition, the Applicant respectfully points out that there is nothing in Paillaman et al. that one of ordinary skill in the art would understand to be “a guide having an inclined surface with respect to a vertical axis of the body when the body is suspended, wherein the guide is movably supported at a lower portion of the body so that the inclined surface of the guide is first inserted into the pump when the body is suspended and lowered into the vessel.” In connection with this, the Applicant understands that the Examiner has equated the tool head 120 in Paillaman et al. with the “guide” as recited by claims 11-14 and 21-23. The Applicant respectfully submits that there is nothing in Paillaman et al. that would lead one skilled in the art to this conclusion. There is simply no discussion of a guide having an inclined surface, supported at a lower portion of the body, such that the inclined surface is first inserted into the pump when the body is suspended and lowered into the vessel. As a result, the Applicant respectfully submits that the absence of such a guide provides additional support for the Applicant’s position that Paillaman et al. does not describe each and every feature of the invention as recited by claims 11-14 and 21-23 and, as a result, cannot be relied upon to anticipate any of claims 11-14 and 21-23.

Ganoza et al. also cannot be relied upon to anticipate claims 11-14 and 21-23 because it also fails to describe each and every feature recited by those claims. Ganoza et al. describes a method and apparatus for cleaning jet pump nozzles. The cleaning device 80 includes a tubing section 82 having a hydrolase head assembly 92 coupled to a first end 84 of the tubing section 82. (Ganoza et al. at paragraph [0020].) The tubing section 82 is a rigid high-pressure conduit for cleaning fluid. (Ganoza et al. at paragraph [0021].) The tubing section 82 is designed so that the first end 84 with the hydrolase head assembly 92 is inserted into a vent inlet 66 of an inlet mixer 40. (Ganoza et al. at paragraph [0021]; see also Fig. 8.) The tubing section 82 includes a semi-circular bend 100 and other bends to form a non-planar, skewed U-shaped first end 84. (Ganoza et al. at paragraph [0023]; see also Fig. 6.)

As noted above, the tubing section 82 is rigid. Accordingly, the first end 84 of the tubing section 82 cannot be relied upon to reject claims 11-14 and 21-23, which recite that “the guide is movably supported at a lower portion of the body.” Since the entirety of the tubing section 82 in

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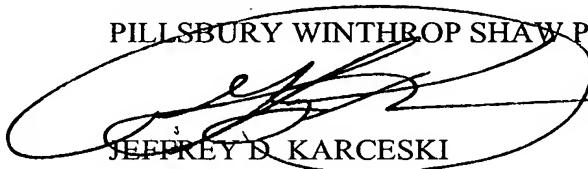
Ganoza et al. is rigid, there is no guide movably supported at a lower portion of the body. As a result, at least for this reason, Ganoza et al. cannot be relied upon to anticipate any of claims 11-14 and 21-23.

Each of the Examiner's rejections having been addressed, the Applicant respectfully requests that the Examiner withdraw the rejection of the claims and pass the pending claims to issue.

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Respectfully submitted,

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